CLAIM SUMMARY DOCUMENT

Claims 1-31 (Canceled)

32. (Currently Amended) A composition consisting of a recombinant modified Ankara (MVA) vector into which are inserted DNA sequences coding for (i) the early E6 polypeptide of a papillomavirus; (ii) the early E7 polypepetide of a papillomavirus; (iii) the late L1 polypeptide of a papillomavirus; and (iv) the late L2 polypeptide of a papillomavirus; each of said DNA sequences being placed under the control of the elements necessary for its expression in a host cell or organism; wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claims 33-35 (Canceled)

36. (Previously Added) The composition of claim 34, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 37 (Canceled)

38. (Previously Added) The composition of claim 35, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

Claim 39 (Canceled)

40. (Previously Amended) The composition of claim 32, wherein said E6 and E7 polypeptides are nononcogenic variants of the native E6 and E7 polypeptides of a papillomavirus.

Claims 41-43 (Canceled)

44. (Currently Amended) A composition consisting of a recombinant modified Ankara (MVA) vector into which are inserted DNA sequences coding for (i) the early E6 polypeptide of a papillomavirus; (ii) the early E7 polypepetide of a papillomavirus; (iii) the late L1 polypeptide of a papillomavirus; and (iv) the late L2 polypeptide of a papillomavirus; and (v) a polypeptide having an immunostimulatory activity;

wherein each of said DNA sequences is placed under the control of the elements necessary for its expression in a host cell or organism and wherein said polypeptide having an immunostimulatory activity is selected from the group

consisting of interleukin-2, interleukin-7, the co-adhesion molecule B7.1 and the co-adhesion molecule B7.2; and

wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claim 45 (Canceled)

46. (Previously Amended) The composition of claim 44, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

47. (Previously Added) The composition of claim 44, wherein the polypeptide having an immunostimulatory activity is the co-adhesion molecule B7.1.

48. (Previously Amended) The composition of claim 44, consisting of one recombinant vector into which is inserted:

(a) a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus and a DNA sequence coding for the co-adhesion molecule B7.1, or

(b) a DNA sequence coding for the E6 polypeptide of a papillomavirus, a DNA sequence coding for the E7 polypeptide of a papillomavirus, a

DNA sequence coding for the L1 polypeptide of a papillomavirus, a DNA sequence coding for the L2 polypeptide of a papillomavirus and a DNA sequence coding for interleukin-2.

49. (Previously Added) The composition of claim 48, wherein said E6 and E7 polypeptides are, respectively, nononcogenic variants of the native E6 and E7 polypeptides of a human papillomavirus.

50. (Previously Amended) The composition of claim 49, wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids 111- 115.

51. (Previously Amended) The composition of claim 49, wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

52. (Canceled)

53. (Previously Added) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 43 to a patient in need of such treatment,

54. (Previously Added) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 43 to a patient in need of such treatment.

55. (Previously Added) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 52 to a patient in need of such treatment.

56. (Previously Added) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 52 to a patient in need of such treatment.

57. (Previously Amended) The composition of claim 40, wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids 111-115.

58. (Previously Amended) The composition of claim 40, wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

Claims 59-61 (Canceled)

62. (Previously Added) The composition of claim 60, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 63 (Canceled)

64. (Previously Added) The composition of claim 61, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

65. (Currently Amended) A composition consisting of a recombinant modified Ankara (MVA) vector into which are inserted DNA sequences coding for (i) the E6 polypeptide of a papillomavirus(ii) the E7 polypeptide of a papillomavirus and (iii) a polypeptide having an immunostimulatory activity; each of said DNA sequences being placed under the control of the elements necessary for its expression in a host cell or organism and wherein said polypeptide having an immunostimulatory activity is selected from the group consisting of interleukin-2, interleukin-7, the co-adhesion molecule B7.1 and the co-adhesion molecule B7.2; and

wherein said recombinant MVA vector is provided in combination with a pharmaceutically acceptable carrier.

Claims 66-68 (Canceled)

69. (Previously Added) The composition of claim 67, wherein said elements necessary for the expression of the DNA sequences comprise a promoter selected from the group consisting of the promoters of the thymidine kinase (TK), 7.5K, H5R and K1L genes.

Claim 70 (Canceled)

71. (Previously Added) The composition of claim 68, wherein said recombinant vector is a MVA strain and wherein said DNA sequences are inserted into at least one of the excision region selected from the I, II, III, IV, V and VI excision regions of said viral vector.

72. (Previously Added) The composition of claim 65, wherein the polypeptide having an immunostimulatory activity is interleukin-2.

73. (Previously Added) The composition of claim 65, wherein said papillomavirus polypeptide is the E6 or the E7 or the E6 and E7 polypeptide of a human papillomavirus.

74. (Previously Amended) The composition of claim 65, consisting of one recombinant vaccinia virus from the Copenhagen or MVA strain into which is inserted a DNA sequence coding for the E6 polypeptide of HPV-16, a DNA sequence coding for the HPV-16 E7 polypeptide and a DNA sequence coding for interleukin-2.

75. (Previously Amended) The composition of claim 65, wherein said E6 and E7 polypeptides are, respectively, nononcogenic variants of the native E6 and E7 polypeptides of a human papillomavirus.

76. (Previously Amended) The composition of claim 75, wherein said nononcogenic variant of the E6 polypeptide is the native HPV-16 E6 polypeptide deleted of amino acids 111-115.

77. (Previously Amended) The composition of claim 75, wherein said nononcogenic variant of the E7 polypeptide is the native HPV-16 E7 polypeptide deleted of amino acids 21-26.

78. (Canceled)

79. (Previously Added) A method for the treatment or prevention of dysplasia or cancer of the neck of the uterus, comprising administering an effective amount of the composition of claim 78 to a patient in need of such treatment.

F17

80. (Previously Added) A method for the treatment or prevention of a papillomavirus infection, comprising administering an effective amount of the composition of claim 78 to a patient in need of such treatment.